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(71) Applicant (for all designated States except US): **DOW CORNING CORPORATION** [US/US]; 2200 Salzburg Road, Midland, MI 48686-0994 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KATSOULIS, Dimitris** [US/US]; 5810 Wildflower Circle, Midland, MI 48642 (US). **SUTO, Michitaka** [JP/JP]; 2-5-1-3 KOZU, Odawara, Kanagawa 256-0812 (JP).

(74) Agents: **MACKENZIE, Kevin, S. et al.**; Clark Hill PLC, 500 Woodward Avenue, Suite 3500, Detroit, MI 48226-3435 (US).

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(54) Title: **SILICONE BASED DIELECTRIC COATINGS AND FILMS FOR PHOTOVOLTAIC APPLICATIONS**

(57) Abstract: A dielectric coating for use on a conductive substrate including a silicone composition of the formula: $[R_xSiO_{(4-x)/2}]_n$ wherein $x=1-4$ and wherein R comprises of methyl, or phenyl, or hydrido, or hydroxyl or alkoxy or combination of them (when $1 < x < 4$). R can also comprise other monovalent radicals independently selected from alkyl or aryl groups, arylother, alkylether, alylamide, arylamide, alkylamino and arylamino radicals. The dielectric coating has a network structure. A photovoltaic substrate is also disclosed and includes a conductive material having a dielectric coating disposed on a surface of the conductive material.

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